

CLAIMS

1. A device for recording hand-written information
in the form of characters, symbols, graphs, drawings,
calligraphy and similar hand-written information defined
by a hand movement, comprising recording means (3) which
are adapted to be moved by a hand which carries out the
hand movement and to record a plurality of images with
partially overlapping contents while the recording means
are being moved, characterised in that the
device further comprises image-processing means (4) which
are adapted to determine the relative position of the
images with the aid of the partially overlapping contents
for providing a description in digital format of how the
recording means have been moved and, in this way, a digi-
tal representation of the hand-written information.

2. A device according to claim 1, wherein the device
is adapted to store said description in digital format.

3. A device according to claim 1 or 2, wherein said
description comprises a plurality of movement vectors
each indicating how the recording means have been moved
between the recording of two images.

4. A device according to claim 1, 2 or 3, wherein
said description comprises turning indications, each
indicating how the recording means have been turned
between the recording of two images.

5. A device according to any one of the preceding
claims, wherein said device is adapted to determine,
on the basis of the overlapping contents of the images,
the speed at which the recording means have been moved
between the recording of two images.

6. A device according to claim 5, wherein said
device is adapted to compare the speed with pre-recorded
speed data for checking the authenticity of the inputted
information.

7. A device according to any one of the preceding claims, wherein the hand-written information comprises characters and wherein the image-processing means are further adapted to identify the characters with the aid of the description in digital format and to store the identified characters in character-coded format.

8. A device according to any one of the preceding claims, wherein said device has a light-sensitive sensor means (8) with a two-dimensional sensor surface for recording the images.

9. A device according to any one of the preceding claims, wherein said image-processing means are adapted to determine the relative position of the images both horizontally and vertically.

10. A device according to any one of the preceding claims, wherein the recording means are adapted to be directed, while being moved, at a surface which is imaged with the aid of said plurality of images.

11. A device according to any one of the preceding claims, further comprising tracing means (28) for indicating on the surface the movement of the recording means.

12. A device according to claim 11, wherein the tracing means (28) comprise an illumination means which projects light onto the surface.

13. A device according to any one of the preceding claims, wherein the recording means and the image-processing means are arranged in a common casing (1) which is adapted to be moved by the hand carrying out the hand movement.

14. A device according to any one of claims 1-12, wherein the recording means are arranged in a first casing and the image-processing means in a second casing.

15. A device according to any one of the preceding claims, wherein the image-processing means comprise a processor (20).

16. A device according to any one of the preceding claims, wherein said device is adjustable to an operational mode in which it is adapted to record predefined information, preferably text, located on an information carrier, by imaging the information with the aid of a plurality of images with partially overlapping contents.

17. A device according to any one of the preceding claims, wherein said device is adjustable to an operational mode in which it is adapted to image an object located at a distance from the device.

18. A device according to any one of the preceding claims, further comprising a transceiver (26) for wireless communication with an external unit.

19. A method of recording hand-written information in the form of characters, symbols, graphs, drawings, calligraphy and similar hand-written information defined by a hand movement, comprising the steps of

- moving a device with a hand which is carrying out the hand movement;
- recording a plurality of images with overlapping contents while moving the device; and
- determining the relative position of the images with the aid of the partially overlapping contents for providing a description in digital format of how the device has been moved and, in this way, a digital representation of the hand-written information.

20. A method according to claim 19, wherein the information defined by a hand movement comprises characters and further comprising the steps of identifying the characters with the aid of the description and storing them in character-coded digital format.

21. A method of determining the position of a handheld device which is adapted to record a plurality of images while it is being moved, characterised in that the images are recorded with partially overlapping contents which are used for determining the position of the device.